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09/996,673	11/30/2001	Jun Arakawa	Q66562	4184

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EXAMINER	
HANG, VU B	
ART UNIT	PAPER NUMBER
2625	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/996,673	ARAKAWA ET AL.	
	Examiner	Art Unit	
	Vu B. Hang	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 November 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19,23-29 and 31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *20-22* is/are allowed.

6)☒ Claim(s) *1-19,23-29 and 31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 November 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/07/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Arguments

Applicant's arguments to the rejected claim are insufficient to distinguish the claimed invention from the cited prior arts to overcome the rejection of the claim under 35 U.S.C. 103(a) as discussed below. Applicant's amendment and arguments with respect to the pending claims 18 and 25-28 have been fully considered are not persuasive for at least the following reasons.

Regarding **Claim 18**, the applicant argues that Simons fails to suggest a reference region on the photosensitive material and predetermined light exposure quantity. Since Simons discloses multiple wavelength regions on a photosensitive medium, it is obvious that one skilled in the art could easily use each of the regions as a reference region. A wavelength region would indicate the appropriate light exposure quantity.

Regarding **Claims 25-28**, the applicant argues that Sasano fails to teach or suggest "a patch on which an image having predetermined density is capable of being formed". Sasano, however, indicated that an image patch (ID section) is located at a region on a photosentive medium with a predetermined density value. This would imply that the density value of the image patch would be known simply by using that particular region as a density reference region. It is also obvious that one skilled in the art could easily set the density range for certain regions of the photosensitive material.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freedman et al. (US Patent 5,436,108) in view of Gagliardo et al. (US Patent 6,071,021), and in further view of Sakamaki et al. (US Patent 4,367,036).

Regarding **Claims 1, 7 and 15**, Freedman discloses an image forming method wherein an image is formed on a photosensitive material (see Col.2, Line 28-30 and Col.3, Line 39-41) containing photosensitive silver halide (see Col.2, Line 4-6) and an organic silver salt (see Col.3, Line 33-34), and consists a step of heating the photosensitive material to form the image (see Col.3, Line 39-41). Freedman fails to expressly disclose performing an image read-out on the photosensitive material to obtain an image signal, performing image processing on the obtained image signal and adjusting a temperature and moisture content of the heated photosensitive material at values falling within predetermined range after the latent image is formed. Gagliardo, however, discloses a method of performing a read-out on a developed photosensitive film containing an image (see Col.3, Line 1-5) and performing predetermined image processing on the image signal obtained from the read-out process (see Col.3, Line 11-13). Sakamaki further discloses adjusting a temperature and moisture content of the heated photosensitive material at values falling within predetermined range (see Fig.6 and Col.7, Line 8-24).

Freedman, Gagliardo and Skamaki are combinable because they are from the same field of endeavor, namely image forming methods for recording latent images on photosensitive medium. At the time of the invention, it would have been obvious for one skilled in the art to include a read-out procedure on a developed photosensitive film material containing an image for the benefit of converting the image into digital format. Converting the image into digital form

allows for image processing to obtain a reproduced image with the desired image quality or viewing form (i.e. image resizing), along with preserving the image quality of the original image since the image quality for images on photosensitive materials is known to deteriorate through time. Images in digital formats would also allow for multiple access of the image in a network environment. It is further obvious to include the process of adjusting a temperature and moisture content of the heated photosensitive material at values falling within predetermined range after the latent image is formed. The motivation would be to prevent deteriorations from occurring on the photosensitive recording medium, which would affect the image quality of the formed latent image.

Regarding **Claims 2 and 8**, Freedman further discloses the heating of the photosensitive material is performed at a temperature ranging from 100 to 200 degrees (see Col.14, Line 32-34) but fails to disclose perform heating for a period ranging from 5 to 60 seconds.

At the time of the invention, it would have been obvious for one skilled in the art to have information concerning the temperature and the amount of time needed for heating the photosensitive material to form an image. Since the materials needed for the photosensitive film and the heating procedures are known the art, it is just a matter of trial and error for one to determine the correct amount of time needed for heating the photosensitive material to form the image.

Regarding **Claims 3 and 9**, Freedman further discloses a heat-developable photosensitive photographic material (see Col.3, Line 66-67), comprising: a support (see Col.4, Line 1-2), and at least three kinds of photosensitive layers (see Col.4, Line 1-2 and Col.11, Line 47-49)

containing silver salt grains, a binder, and a color-developing agent (see Col.4, Line 1-6), and a color image of at least three colors formed on the material (see Col.13, Line 60-64).

Regarding **Claims 4 and 10**, Freedman discloses a photosensitive material containing silver halide (see Col.2, Line 13-19) but fails to disclose the specific amount of silver halide contained in the photosensitive material.

At the time of the invention, it would have been obvious for one skilled in the art to have information concerning the amount of silver halide used on the photosensitive material. Since it is known in the art that a typical photosensitive film where images can be developed through heating contains silver halide, it is just a matter of trial and error to determine the correct amount needed to meet the objectives of the invention.

Regarding **Claims 5 and 11**, Freedman further discloses the organic silver salt is a salt of a compound containing an imino group (see Col.4, Line 47-49).

Regarding **Claims 6 and 12**, Freedman further discloses the organic silver salt is a salt of a derivative of benzotriazole (see Col.4, Line 47-49).

Claims 13-14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freedman et al. (US Patent 5,436,108) in view of Gagliardo et al. (US Patent 6,071,021), and in further view of Sakamaki et al. (US Patent 4,367,036), and in further view of Ballegaard et al. (US Patent 5,459,505).

Regarding **Claims 13, 14 and 16**, Freedman and Gagliardo disclose the system as described in Claim 7 but fail to expressly disclose a pre-development or post-development temperature and moisture content adjusting means for the development processing section.

Ballegaard, however, discloses a temperature and moisture content adjusting unit for the development processing section (see Col.3, Line 64-67 and Col.4, Line 1-8).

Freedman, Gagliardo, Sakamaki and Ballegaard are combinable because they are from the same field of endeavor, namely image forming methods for recording latent images on photosensitive medium. At the time of the invention it would have been obvious for one skilled in the art to include a temperature and moisture content adjusting means to the system of Claim 7, for adjusting the temperature and moisture before and after the photosensitive material is heated for image formation. The motivation for doing so would be to limit the dimensional changes of the photosensitive material along with maintaining the image quality of the image formed. It is known in the art that temperature and moisture tends to change the dimensions of the photosensitive material. This would in turn effects the image quality of the image formed on the material.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freedman et al. (US Patent 5,436,108) in view of Gagliardo et al. (US Patent 6,071,021), and in further view of Fukui et al. (US Patent 5,663,032).

Regarding **Claim 17**, Freedman and Gagliardo disclose the system as described in Claim 7 but fail to expressly disclose a compensation processing means for compensating for a contribution of a print-out effect. Fukui, however, discloses a compensation processing means for compensating for a contribution to the sharpness printout effect (see Col.5, line 66-67 and Col.6, Line 1-25).

Freedman, Gagliardo and Fukui are combinable because they are from the same field of endeavor, namely image forming methods for recording latent images on photosensitive

medium. At the time of the invention it would have been obvious to include a compensation processing means for compensating for a contribution of a printout effect. The motivation for doing so would be enhance the image quality of the resulting image.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freedman et al. (US Patent 5,436,108) in view of Gagliardo et al. (US Patent 6,071,021), and in further view of Fukui et al. (US Patent 5,663,032), and in further view of Simons (US Patent 5,418,119).

Regarding **Claim 18**, Freedman, Gagliardo and Fukui disclose the system as described in Claims 7, 15 and 17 above but fail to expressly disclose a reference region on the photosensitive material to which predetermined exposure quantity is given. Simons, however, discloses multiple wavelength regions on the photosensitive material in which certain color images can be formed, based on the reflection characteristics of the region (see Col.8, Line 13-36).

Freedman, Gagliardo, Fukui and Simons are combinable because they are from the same field of endeavor, namely photosensitive image recording apparatuses. At the time of the invention, it is obvious for one skilled in the art to include reference regions to the photosensitive recording medium for the benefit of forming multi-color images on the medium. It is known in the art that photosensitive materials typically contain wavelength specific areas for forming certain color images. It is also known that different color formations are dependent on the light intensities irradiated and the reflection characteristics of the material.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freedman et al. (US Patent 5,436,108) in view of Gagliardo et al. (US Patent 6,071,021), and in further view of Fukui et al. (US Patent 5,663,032), and in further view of Inagaki et al. (US Patent 5,200,489).

Regarding **Claim 19**, Freedman, Gagliardo and Fukui disclose the system as described in Claim 17 above but fail to expressly disclose a light quantity storage means for storing information representing cumulative light quantity of reading light irradiated to the photosensitive material. Inagaki, however, discloses a memory for storing light quantity of reading light irradiated to the photosensitive material (see Col.8, Line 31-53).

Freedman, Gagliardo, Fukui and Schultz are combinable because they are from the same field of endeavor, namely photosensitive image recording apparatuses. At the time of the invention, it is obvious for one skilled in the art to include a storage means for storing light quantity information to the image forming system. The motivation for doing so would be to allow the system to irradiate the correct amount of light intensities during image scanning or read-out. This would also allow the system operator to select the desired intensity for the read-out process. The light quantity or intensity information would be useful for the color detection of the images formed on the photosensitive recording medium.

Claims 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freedman et al. (US Patent 5,436,108) in view of Gagliardo et al. (US Patent 6,071,021), and in further view of Sasano et al. (US Patent 6,198,837 B1).

Regarding **Claim 23**, Freedman and Gagliardo disclose the system as described in Claim 7 but fail to expressly disclose an identification code appending means for the photosensitive developed film, an image identification code for the image data and a storage means for storing a plurality of digital image data. Sasano, however, discloses an identification code appending means for the photosensitive developed film (see Fig.1 and Col.4, Line 30-36), an image

identification code for the image data (see Fig.1 and Col.1, Line 60-65) and a storage means for storing a plurality of digital image data (see Fig.11 (18) and Col.2, Line 41-45).

Freedman, Gagliardo and Sasano are combinable because they are from the same field of endeavor, namely photosensitive image recording apparatuses. At the time of the invention it would have been obvious for one skilled in the art to include an identification code appending means, an image identification code and a storage means to the system of Claim 7. The motivation for doing so would be to store multiple image data on the system and identifying the image data stored.

Regarding **Claim 24**, Sasano further discloses an image-retrieving means for retrieving each digital image data (see Fig.11 (18) and Col.16, Line 49-55). Since Sasano discloses identification codes for the images and a database for storing a plurality of digital image data for the system, it is obvious for one skilled in the art to include an image-retrieving mean for the system. A system with a data storage device would likely have a data-retrieving method to select and retrieve the stored data.

Regarding **Claims 25-28**, Freedman and Gagliardo disclose the system as described in Claim 7 but fail to expressly disclose a patch on the photosensitive material where images having predetermined densities can be formed, specific layout or locations for the patch and a development judging means for measuring the density of the image having been formed on the photosensitive material. Sasano, however, discloses a patch on the photosensitive material where images can be formed (see Fig.1 (2) and Col.4, Line 30-34) and a development judging means for measuring or detecting the image density (see Col.5, Line 14-20 and Col.12, Line 6-39).

At the time of the invention, it would have been obvious for one skilled in the art to include a patch where images with predetermined density can be formed and an image density detecting or measuring means to the system of Claim 7. The motivation for doing so would be to include an identification tag or label to the developed photosensitive images, and to have the image read-out process be able to detect the images or identification information from the patch. The patch and image density detecting or measuring means would benefit a system that develops and stores photosensitive images and digital image data. The patch would identify the individual images and the image density detecting or measuring means would detect the identification information for digital conversions. It is also obvious for one skilled in the art to determine the specific locations for the patch on the photosensitive material, along with altering the size or shape to meet the desired layout criteria.

Claims 29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freedman et al. (US Patent 5,436,108) in view of Gagliardo et al. (US Patent 6,071,021), and in further view of Roberts et al. (US Patent 5,744,287), and in further view of Simons (US Patent 5,418,119).

Regarding **Claim 29**, Freedman and Gagliardo disclose the system as described in Claim 7 but fail to expressly disclose a magnetic recording layer on the photosensitive material and a magnetic recording information reading means. Roberts, however, discloses a magnetic recording layer on a photosensitive recording medium for which information can be recorded magnetically (see Col.2, Line 14-36 and Col.49, Line 27-43). Simons further discloses a magnetic recording information reading means (see Col.4, Line 52-56).

Freedman, Gagliardo, Roberts and Simons are combinable because they are from the same field of endeavor, namely photosensitive image recording apparatuses. At the time of the invention, it would have been obvious for one skilled in the art to include a magnetic recording layer and a magnetic information reading means to the system of Claim 7. The motivation for doing so would be to provide the system with the capability to record image information on the photosensitive recording medium while also providing the system the capability to digitized the information through scanning.

Regarding **Claim 31**, Freedman and Gagliardo disclose the system as described in Claims 7 and 29 but fail to expressly disclose information representing read-out conditions of the read-out means being recorded on the magnetic recording layer and the system executing the read-out process based on the read-out conditions read by the magnetic information recording means. Gagliardo further discloses a CPU in the system (see Fig.6 (55) and Col.5, Line 43-46). Simons, however, discloses multiple wavelength regions on the photosensitive material in which certain color images can be formed, based on the reflection characteristics of the region (see Col.8, Line 13-36).

Freedman, Gagliardo and Simons are combinable because they are from the same field of endeavor, namely photosensitive image recording apparatuses. At the time of the invention, it would have been obvious for one skilled in the art to include in the system the recording of the read-out conditions information on the magnetic recording layer of the photosensitive material and have the system CPU execute the read-out process based on the recorded read-out information. The motivation for doing so would be to provide the system with predetermined instructions for the read-out process. This would eliminate mistakes by the system operator when

inputting the instructions or read-out conditions manually and allows for a more efficient process when performing the image -readout.

Allowable Subject Matter

Claims 20-22 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vu B. Hang whose telephone number is (571) 272-0582. The examiner can normally be reached on Monday-Friday, 9:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tylwer M. Lamb can be reached on (571) 272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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